

Stantec Analytical Validation Checklist
Report No. SDG#ASY26

Project Name: Amtrak Wilmington	Project Number: 213402048		
Stantec Validator: Linda Goad	Laboratory: Eurofins/Lancaster Laboratory		
Date Validated: 10/16/2018	Laboratory Project Number: 1396681		
Sample Start-End Date: 06/09/2013	Laboratory Report Date: 07/18/2013		
Parameters Validated: Polychlorinated Biphenyls (PCBs) by EPA SW-846 8082 w/ microwave soil extraction and moisture. Percent Solids by SM 2540 G			
Samples Validated: <u>SB-63 (6.0-8.0)</u> (composite soil); <u>SB-63 (8.0-10.0)</u> (composite soil); <u>SB-63 (10.0-12.0)</u> (composite soil); <u>SB-63 (12.0-13.8)</u> (composite soil); <u>SB-67 (6.0-8.0)</u> (composite soil); <u>SB-67 MS (6.0-8.0)</u> (composite soil); <u>SB-63 MSD (6.0-8.0)</u> (composite soil); <u>SB-67 (8.0-10.0)</u> (composite soil); <u>SB-DUP-10</u> (composite soil); <u>SB-67 (10.0-12.3)</u> (composite soil); <u>SB-68 (6.0-8.0)</u> (composite soil); <u>SB-68 (8.0-10.0)</u> (composite soil); <u>SB-68 (10.0-12.0)</u> (composite soil); <u>SB-68 (12.0-14.0)</u> (composite soil); <u>SB-68 (14.0-16.0)</u> (composite soil); <u>SB-68 (16.0-17.7)</u> (composite soil); <u>SB-69 (6.0-8.0)</u> (composite soil); <u>SB-69 (8.0-10.0)</u> (composite soil); <u>SB-69 (10.0-12.0)</u> (composite soil); and <u>SB-69 (12.0-13.5)</u> (composite soil).			
VALIDATION CRITERIA CHECK			
Validation Flags Applicable to this Review:			
U	The analyte was analyzed for, but not detected above the reported sample quantitation limit.		
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.		
J-	Result is estimated quantity but the result may be biased low.		
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.		
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.		
B	The analyte was detected in the method, field, and/or trip blank.		
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.		
1.	Were all the analyses requested for the samples submitted with each COC completed by the lab?	Yes X	No
Comments:			
2.	Did the laboratory identify any non-conformances related to the analytical result?	Yes	No X
Comments: None			
3.	Were sample Chain-of-Custody forms complete?	Yes	No X
Comments: Sample receipt log indicates "BS-SB-5 sample time = 1050," this sample is not included in this lab report. No corrective action required. Sample receipt log indicates that the lab "received 2 ... ambers for samples <u>EB06092013</u> and <u>EB06102013</u> ." These samples are not included in the lab report. No corrective action required.			
4.	Were samples received in good condition and at the appropriate temperature?	Yes X	No

Comments: Based on the laboratory sample receipt form, the samples were received by the laboratory without custody seals.			
5. Were sample holding times met?		Yes X	No
Comments:			
6. Were correct concentration units reported?		Yes X	No
Comments:			
7. Were detections found in laboratory blank samples?		Yes	No X
Comments: None			
8. Were detections found in field blank, equipment rinse blank, and/or trip blank samples?		Yes	No X
Comments: Not applicable, no blanks included in this lab report.			
9. Were instrument calibrations within method criteria?	NA X	Yes	No
Comments: Not Applicable, Level II data validation.			
10. Were surrogate recoveries within control limits?		Yes	No X
Comments: PCBs: The percent recoveries (%R) for the PCB surrogate tetrachloro-m-xylene (TMX) and for the surrogate decachlorobiphenyl (DCB) were below the Delaware Department of Natural Resources (DNREC) Standard Operating Procedures for Chemical Analytical Programs Under the Hazardous Substances Cleanup Act (SOPCAP, Feb. 26, 2015) control limits in sample SB-68(14.0-16.0). Detected PCBs were qualified J- (estimated with a low bias); nondetected PCBs were qualified UJ (estimated reporting limit). Reason code: SUR			
11. Were laboratory control sample(s) (LCS/LCSD) sample recoveries within control limits?		Yes X	No
Comments:			
12. Were matrix spike (MS/MSD) recoveries within control limits?	NA	Yes X	No
Comments:			
13. Were RPDs within control limits?		Yes X	No
Comments:			
14. Were dilutions required on any samples?		Yes	No X
Comments:			

15. Were Tentatively Identified Compounds (TIC) present?	NA X	Yes	No
Comments: TIC not requested.			
16. Were organic system performance criteria met?	NA X	Yes	No
Comments: Not Applicable, Level II data validation.			
17. Were GC/MS internal standards within method criteria?	NA X	Yes	No
Comments: Not Applicable, Level II data validation.			
18. Were inorganic system performance criteria met?	NA X	Yes	No
Comments:			
19. Were blind field duplicates collected? If so, discuss the precision (RPD) of the results.		Yes X	No
<u>Primary Sample ID</u> SB-67(6.0-8.0)	<u>Duplicate Sample ID</u> SB-DUP-10		
Comments: PCB-1260 was detected in the primary field sample but not in the field duplicate. An RPD could not be calculated for PCB-1260; therefore, no data were qualified.			
20. Were at least 10 percent of the hard copy results compared to the Electronic Data Deliverable Results?	Yes X	No	Initials KEF
Comments:			
21. Other?		Yes	No X
Comments:			
PRECISION, ACCURACY, METHOD COMPLIANCE AND COMPLETENESS ASSESSMENT			
Precision:	Acceptable X	Unacceptable	Initials LEG
Comments: Based on laboratory spike data for LCS.			
Sensitivity:	Acceptable X	Unacceptable	Initials LEG
Comments:			
Accuracy:	Acceptable X	Unacceptable	Initials LEG
Comments: Based on laboratory spike data for LCS.			

Representativeness:	Acceptable X	Unacceptable	Initials LEG
Comments:			
Method Compliance:	Acceptable X	Unacceptable	Initials LEG
Comments:			
Completeness:	Acceptable X	Unacceptable	Initials LEG
Comments:			